

REMARKS/ARGUMENTS

The office action of October 21, 2005 has been carefully reviewed and these remarks are responsive thereto.

The specification has been amended to improve clarity purposes. Similarly, at the request of the Office Action, the drawings have been amended to improve clarity specifically by adding an inadvertently omitted label. No substantive amendments were made and no new matter has been added.

Claims 1-20 have been amended to improve clarity and consistency. Claims 1-20 thus remain pending in this application.

Reconsideration and allowance of the instant application are respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 1-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Usami (U.S. Pat. No. 5,748,342, hereinafter Usami). Applicants respectfully traverse this rejection for at least the following reasons.

In order to reject a claim as anticipated under 35 U.S.C. § 102, a single prior art reference must teach every aspect of the claimed invention. MPEP § 706.02. However, Usami does not teach or suggest all of the claim limitations of any rejected claim, as discussed in detail below.

Independent claim 1 recites:

A method of adapting image information to a perceptive capacity of a human eye, having the following steps:

displaying lightness values and colorimetric values or chromaticity steps from an original image as a group of points in an initial color space;

transferring the group of points into a physiologically substantially equal-spaced perceived color space while maintaining the geometry of the group of points within the limits of an output color space projected into the perceived color space;

transforming the group of points from the perceived color space into the output color space by using transformation equations existing between the perceived color space and the output color space;

displaying an image with lightness values and colorimetric values or chromaticity steps in accordance with the group of points contained in the output color space.

The Office Action states that Usami anticipates claim 1. However, the Office Action merely cherry picks portions of Usami in an attempt to make Usami appear as if it is an anticipatory reference when, in fact, it is not. For example, the Office Action states that Usami discloses transferring the group of points into a physiologically substantially equal-spaced perceived color space while maintaining the geometry of the group of points within the limits of an output color space projected into the perceived color space. However, Usami cannot and does not disclose, much less even utilize, a transferring step as recited in the current application while accomplishing the stated objectives of Usami.

The present application relates to a method of adapting image information to the perceptive capacity of the human eye. For example, in the exemplary present method colors lying extremely close to one another in an original image are displayed in a pseudo image such that the color difference between these close lying colors are more readily detectable even though the absolute color information is modified. This method improves assessability and detectability but also provides a loss in the fidelity of the color, as the absolute color information is distorted.

In contrast, Usami relates to an image forming apparatus which allows a user to preview an image to be formed, before it is formed. *See Usami, col., ll. 5-9.* The purpose of Usami is to allow a user to preview several images formed by various imaging processes to select the image for printing that is most similar in absolute color to the input image displayed.

Therefore, a desired color space compression process is performed for input image data in such a manner that all input colors including colors outside a color reproduction range are converted into colors in the color reproduction range, **which are similar in appearance to the original colors. With this process, the color appearance of an image to be actually formed can be expressed as accurately as possible.** *Usami, col. 4, ll. 15-23.*
[Emphasis added]

Thus, Usami's purpose is to provide the color appearance of the output image as accurately as possible with respect to the input image. This purpose is in direct opposition with the methods described by the current application in which a method of adapting image information to the perceptive capacity of the human eye is described despite resulting deviations

from the absolute color information. In short, Usami's purpose of absolute color puts it at odds with the current application.

Specifically, Usami's supposed step of transferring the group of points into a physiologically substantially equal-spaced perceived color space specifically does not maintain the geometry of the group of points within the limits of an output color space projected into the perceived color space as recited in claim 1. The Office Action relies on Figure 6, specifically step S4 containing an RGB \rightarrow L*a*b conversion and step S5 Color Space Compression, as Usami's disclosure of the recited transferring step.

Applicants concedes that the L*a*b color space is an example of a substantially equal-spaced perceived color space. Thus, an RGB \rightarrow L*a*b conversion may result in the transferring of a group of points into a physiologically substantially equal-spaced perceived color space. However, the conversion in step S4 does not cause the geometry of the group of points to be maintained. Rather, in direct contradiction to the recited feature in the transferring step of claim 1, the conversion in step S4 requires modification of the geometry of the group of points in order to maintain the absolute color information that may allow an accurately colored output in Usami. Next, Figure 6 shows the color compression of step S5 being performed which merely causes the already distorted geometry to be modified so as to fit in the color space of a specific printer. *See Usami, Figure 6 and col. 5, ll. 1-7.* Thus, Usami does not teach or disclose the transferring step recited in the current application.

Claims 2-20 depend from independent claim 1 and are allowable for all the reasons given above concerning the respective base claim 1, and further in view of their specific recitations that have not been shown to be in (or obvious from) the prior art.

The Office Action makes U.S. Patent No. 6,023,057 to Narahara (hereafter Narahara) of record but does not rely upon Narahara. The Office Action states that Narahara describes color conversion system similar to that of Usami. Narahara fails to add to that described in Usami and for the same reasons as described with respect to Usami, neither Narahara or Narahara in combination with Usami anticipates or renders obvious any of pending claims 1-20.

Appln. No.: 09/987,020
Amendment dated April 21, 2005
Reply to Office Action of October 21, 2004

CONCLUSION

All rejections having been addressed, applicant respectfully submits that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Applicant authorizes the Commissioner to charge Deposit Account 19-0733 for the three month extension of time associated with the filing of this response and any additional required charges associated with this application. If for any reason the Examiner believes the application is not in condition for allowance or there are any questions, the examiner is requested to contact the undersigned at (202) 824-3100.

Respectfully submitted,
BANNER & WITCOFF, LTD.

Dated this 21st day of April, 2005

By:



Robert S. Katz, Registration No. 36,402

1001 G Street, N.W.
Washington, D.C. 20001-4597
Tel: (202) 824-3000
Fax: (202) 824-3001
RSK/DRG/sgs

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Amendments to the Drawings:

Attached is an annotated sheet of drawings depicting the addition of the label "Fig. 1c" to previously unlabeled Fig. 1c, per the request of the Office Action. Also attached, please find a replacement sheet adding the "Fig. 1c" label. This replacement sheet, which includes Figs. 1a-1d, replaces the originally filed sheet.

Attachment: 2 Sheets of Drawings (1 Annotated Sheet; 1 Replacement Sheet)

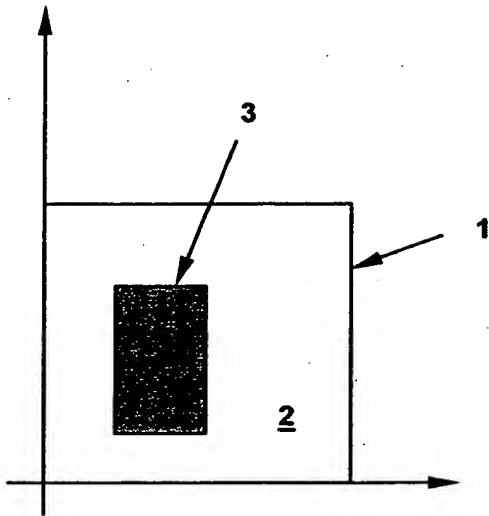


Fig. 1a

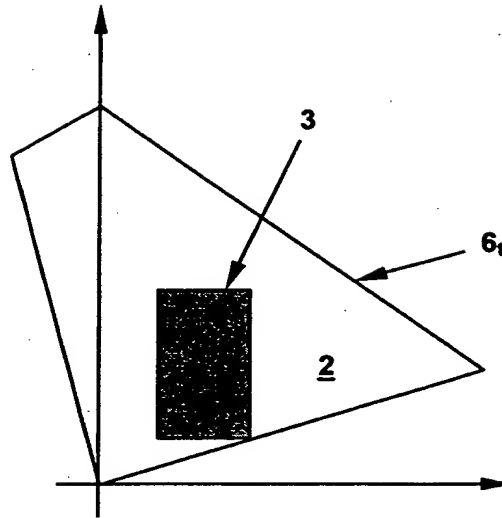


Fig. 1b

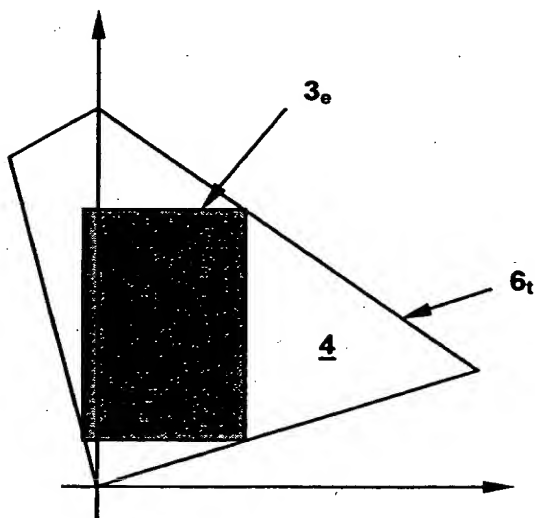


Fig. 1c

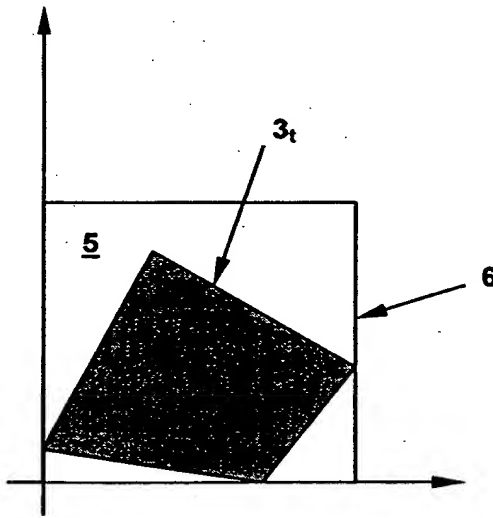


Fig. 1d